As provided by Rule 2A:2 of the Supreme Court of Virginia, you have 30 days from the date of service of this decision (the date you actually received this decision or the date on which it was mailed to you, whichever occurred first), within which to initiate an appeal of this decision by filing a Notice of Appeal with:

Robert G. Burnley, Director
Department of Environmental Quality
PO Box 10009
Richmond, Virginia 23240-0009

In the event that this decision is served on you by mail, three days are added to the period in which to file an appeal. Please refer to Rule 2A of the Rules of the Supreme Court of Virginia for information on the required content of the Notice of Appeal and for additional requirements governing appeals from decisions of administrative agencies.

If you have any questions concerning this permit, please call Ms. Kelly M. Ryan at (757) 518-2155.

Sincerely,

Harold J. Winer
Deputy Regional Director

HJW/KMR/nasawallopssop2004.doc

Attachment: Permit

c. Director, OAPP (electronic file submission)
Manager, Data Analysis (electronic file submission)
Chief, Permits and Technical Assessment Branch (3AP12), U.S. EPA, Region III

STATIONARY SOURCE PERMIT TO OPERATE

This permit supersedes the permits dated August 30, 2000, and September 20, 2001.

In compliance with the Federal Clean Air Act and the Commonwealth of Virginia Regulations for the Control and Abatement of Air Pollution,

NASA Goddard Space Flight Center
Wallops Flight Facility
Wallops Island, Virginia 23337-5099
Registration No.: 40909
AFS Id. No.: 51-001-00031

is authorized to operate

a Space Flight Test Facility

located at

Wallops Island, Accomack County, Virginia

in accordance with the Conditions of this permit.

Approved on **Date**.

_____
Director, Department of Environmental Quality

Permit consists of 8 pages.
Permit Conditions 1 to 25.

PERMIT CONDITIONS - the regulatory reference or authority for each condition is listed in parentheses ( ) after each condition.

APPLICATION

1. Except as specified in this permit, the permitted facility is to be operated as represented in the permit application dated September 20, 1996, August 8, 2001, and May 11, 2004, including amendment information received on October 28, 1996, May 24, 2000, June 30, 2000, July 25, 2000, April 20, 2004 and May 19, 2004. Any changes in the permit application specifications or any existing facilities which alter the impact of the facility on air quality may require a permit. Failure to obtain such a permit prior to construction may result in enforcement action.
   (9 VAC 5-80-830)

PROCESS REQUIREMENTS

2. **Equipment List** – Fuel burning equipment to be operated at this facility consists of:

   - Emergency Generator (80 kW), Kohler, 80 RZG, Installed: 2003.

   Previously permitted equipment at this facility prior to the date of this permit consists of:

   - Boiler (0.744 million BTU per hour).
   - Emergency Generator (0.0111 million BTU per hour), ONAN, 31-FB-Y43, Installed: Unknown (propane only).
   - Boiler (0.91 million BTU per hour), HB Smith, Series 19-7, Installed: 1990.
   - Boiler (0.91 million BTU per hour), Ramers Electra Steam, R-24, Installed: Unknown.
   - Pump, Detroit Diesel Allison (0.35 million BTU per hour), PTA 1SD 273, Installed: Unknown.
   - Boiler (0.252 million BTU per hour), Weil-Mclain, P-688-WT, Installed: 1988.
   - Emergency Generator (2.11 million BTU per hour), Caterpillar, 3306, Installed: Unknown.
   - Boiler (0.420 million BTU per hour), HB Smith, Installed: 1995.
   - Boiler (1.26 million BTU per hour), Columbia, WL-90, Installed: 1996.
   - Pump, Diesel Engine (0.420 million BTU per hour), Clarke, L4YN, Installed: 1996.
   - Boiler (0.476 million BTU per hour), Columbia/Utica, HS-900W, Installed: 1986.
   - Boiler (0.476 million BTU per hour), Columbia/Utica, HS-900W, Installed: 1986.
   - Emergency Generator (2.58 million BTU per hour), Caterpillar, 3406B, Installed: Unknown.
   - Fire Pump, Diesel Engine (0.28 million BTU per hour), Installed: Unknown.
   - Boiler (1.26 million BTU per hour), Cleaver Brooks CB100-30-30, Installed: 1989.
   - Boiler (0.350 million BTU per hour), HB Smith, 2000L 4 sec, Installed: 1990.
   - Boiler (0.175 million BTU per hour), HB Smith, Installed: 1990.
   - Boiler (0.420 million BTU per hour), HB Smith, Series 19-4, Installed: 1990.
   - Boiler (1.65 million BTU per hour), Weil-Mclain, BL-688-WS, Installed: 1992.
   - Furnace (0.49 million BTU per hour), Weil-Mclain, Installed: 1992.
   - Emergency Generator (0.141 million BTU per hour), Kohler, 15ROZ81, Installed: Unknown.
   - Emergency Generator (3.2911 million BTU per hour), Waukesha, LRD, Installed: Unknown.
   - Boiler (0.504 million BTU per hour), Weil-Mclain, ABL676-5W, Installed: 1988.

- Boiler (2.1 million BTU per hour), Cleaver Brooks, CB100-50, Installed: 1992.
- Furnace (0.15 million BTU per hour), Installed: Unknown.
- Boiler (1.6 million BTU per hour), HB Smith, Series 28 sec 6, Installed: 1983.
- Emergency Generator (0.329 million BTU per hour), Kohler, 30ROZJ81, Installed: Unknown.
- Boiler (1.2 million BTU per hour), Bryan, AB120-W-FDO, Installed: 1994.
- Boiler (0.140 million BTU per hour), HB Smith, BB14, Installed: 1990.
- Emergency Generator (0.378 million BTU per hour), Kohler, 40ROZJ81, Installed: Unknown.
- Boiler (0.420 million BTU per hour), HB Smith, Installed: 1995.
- Boiler (1.190 million BTU per hour), HB Smith, Series 19-9, Installed: 1990.
- Boiler (0.490 million BTU per hour), HB Smith, 2000L Series 4, Installed: 1990.
- Boiler (0.553 million BTU per hour), Burnham America, PF 36, Installed: 1974.
- Boiler (1.68 million BTU per hour), Cleaver Brooks, CB100-40, Installed: 1993.
- Paint spray booth
- Emergency Generator (750 kW), Katolight, D750FRY4, Installed: 2001.

3. **Emission Controls** - Emissions from the fuel burning equipment shall be controlled by good combustion practices. The boiler, generators, diesel driven pumps and furnaces shall be provided with adequate access for inspection.
   (9 VAC 5-80-850)

OPERATING/EMISSION LIMITATIONS

4. **Fuel** - The approved fuels for the boilers, generators, diesel driven pumps and furnaces are propane, distillate oil and off-specification jet fuels (JP5, JP10 and JPTS). A change in the fuel may require a permit to modify and operate.
   (9 VAC 5-80-850)

5. **Fuel Throughput** - The boilers, generators and furnaces, combined, shall consume no more than 1.377 million gallons of distillate oil per year and 23,005 gallons of propane per year, calculated monthly as the sum of each consecutive 12-month period. The boilers and generators, combined, shall consume no more than 6,000 gallons of off-specification jet fuel per year, calculated monthly as the sum of each consecutive 12-month period.
   (9 VAC 5-80-850)

6. **Open Burning** - All open burning of nitrocellulose/nitroglycerin is to be conducted in compliance with requirements in 9 VAC 5-40-5630 1.a. of State Regulations.
   (9 VAC 5-40-5630 1.a.)

7. **Throughput** - The paint spray booth shall consume no more than 346 gallons per year, calculated monthly as the sum of each consecutive 12-month period.
   (9 VAC 5-80-850)

8. **Emergency Generator** - The 750 kW and 80 kW generators are to be used **only** for providing power at this location during interruption of service from the normal power supplier, periodic maintenance testing, and operational training.
(9 VAC 5-80-850)

9. **Operating Hours** - The pumps and generators shall not operate more than the hours in the table below per year, calculated monthly as the sum of each consecutive 12-month period:

Propane Generator rated at 80 kW	500 hours
Diesel Generator rated at 750 kW	500 hours
Propane Generator rated at 0.0111 million BTU heat input	8,738 hours
Diesel Generator rated at 2.110 million BTU heat input	4,238 hours
Diesel Generator rated at 2.580 million BTU heat input	1,808 hours
Diesel Generator rated at 0.141 million BTU heat input	1,811 hours
Diesel Generator rated at 3.290 million BTU heat input	1,359 hours
Diesel Generator rated at 0.329 million BTU heat input	8,641 hours
Diesel Generator rated at 0.378 million BTU heat input	8,652 hours
Diesel Engine Pump rated at 0.350 million BTU heat input	8,635 hours
Diesel Engine Pump rated at 0.420 million BTU heat input	8,641 hours
Diesel Engine Pump rated at 0.280 million BTU heat input	8,625 hours

(9 VAC 5-80-850)

10. **Fuel Certification** - The maximum sulfur content of the distillate oil to be burned shall not exceed 0.5% by weight per shipment. The permittee shall obtain a certification from the fuel supplier with each shipment of distillate oil. Each fuel supplier certification shall include the following:
    a. The name of the fuel supplier;
    b. The date on which the distillate oil was received;
    c. The volume of distillate oil delivered in the shipment; and,
    d. A statement that the distillate oil complies with the American Society for Testing and Materials specifications for numbers 1 or 2 fuel oil.

    (9 VAC 5-80-850 and 9 VAC 5-80-900)

11. **Emission Limits** - Volatile Organic Compound (VOC) emissions from the paint spray booth are limited to 3 pounds per hour, 15 pounds per day, and 2.7 tons per year.
(9 VAC 5-40-4760)

12. **Emission Limits** - Emissions from the operation of the boilers and furnaces shall not exceed the limits specified below:

	EACH	**COMBINED**
Particulate Matter	0.1 lbs/hr	1.4 tons/yr
PM-10	0.1 lbs/hr	0.7 tons/yr
Sulfur Dioxide	1.2 lbs/hr	49.7 tons/yr
Nitrogen Oxides (as NO_2)	0.4 lbs/hr	14.1 tons/yr
Carbon Monoxide	0.1 lbs/hr	3.5 tons/yr

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits shall be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Condition numbers 4, 5, 10, 15 and 16.
(9 VAC 5-80-850)

13. **Emission Limits** - Emissions from the operation of the pumps and generators shall not exceed the limits specified below:

	EACH	COMBINED
Particulate Matter	0.9 lbs/hr	4.8 tons/yr
PM-10	0.9 lbs/hr	4.8 tons/yr
Sulfur Dioxide	0.9 lbs/hr	4.8 tons/yr
Nitrogen Oxides (as NO_2)	14.4 lbs/hr	73.3 tons/yr
Carbon Monoxide	206.3 lbs/hr	38.3 tons/yr
Volatile Organic Compounds	6.9 lbs/hr	7.6 tons/yr

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits shall be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Condition numbers 4, 5, 9, 10, 15 and 16.
(9 VAC 5-80-850)

14. **Plantwide Emission Limits** - Total emissions from the space flight test facility shall not exceed the limits specified below:

Particulate Matter	6.2 tons/yr
PM-10	5.5 tons/yr
Sulfur Dioxide	54.5 tons/yr
Nitrogen Oxides (as NO_2)	87.4 tons/yr
Carbon Monoxide	41.8 tons/yr
Volatile Organic Compounds	7.6 tons/yr

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits shall be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Condition numbers 4, 5, 7, 8, 9, 11 and 16.
(9 VAC 5-80-850)

15. **Visible Emission Limit** - Visible emissions from each boiler, generator, diesel driven pump and furnace shall not exceed twenty (20) percent opacity except during one six-minute period in any one hour in which visible emissions shall not exceed thirty (30) percent opacity as determined by the EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown, and malfunction.
(9 VAC 5-80-850 and 9 VAC 5-50-80)

RECORDS

16. **On Site Records** - The permittee shall maintain records of emission data and operating parameters as necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Director, Tidewater Regional Office. These records shall include, but are not limited to:
    a. The monthly hours of operation for each diesel generator and diesel driven pump.
    b. The annual throughput of propane, calculated monthly as the sum of each consecutive 12-month period.
    c. The annual throughput of distillate oil, calculated monthly as the sum of each consecutive 12-month period
    d. The annual throughput of off-specification jet fuel, calculated monthly as the sum of each consecutive 12-month period.
    e. All fuel supplier certifications.
    f. The annual throughput of paint, calculated monthly as the sum of each consecutive 12-month period.
    g. The VOC emissions from the paint spray booth. Annual emissions shall be calculated monthly as the sum of each consecutive 12-month period.

    These records shall be available for inspection by the DEQ and shall be current for the most recent five years. Records shall be stored on-site at Wallops Island.
    (9 VAC 5-80-900)

GENERAL CONDITIONS

17. **Right of Entry** - The permittee shall allow authorized local, state, and federal representatives, upon the presentation of credentials:
    a. To enter upon the permittee's premises on which the facility is located or in which any records are required to be kept under the terms and conditions of this permit;
    b. To have access to and copy at reasonable times any records required to be kept under the terms and conditions of this permit or the State Air Pollution Control Board Regulations;
    c. To inspect at reasonable times any facility, equipment, or process subject to the terms and conditions of this permit or the State Air Pollution Control Board Regulations; and
    d. To sample or test at reasonable times.

    For purposes of this condition, the time for inspection shall be deemed reasonable during regular business hours or whenever the facility is in operation. Nothing contained herein shall make an inspection time unreasonable during an emergency.
    (9 VAC 5-170-130)

18. **Notification for Control Equipment Maintenance** - The permittee shall furnish notification to the Tidewater Regional Office of the intention to shut down or bypass, or both, air pollution control equipment for necessary scheduled maintenance, which results in excess emissions for more than one hour, at least 24 hours prior to the shutdown. The notification shall include, but is not limited to, the following information:
    a. Identification of the air pollution control equipment to be taken out of service, as well as its location, and registration number;
    b. The expected length of time that the air pollution control equipment will be out of service;
    c. The nature and quantity of emissions of air pollutants likely to occur during the shutdown period;
    d. Measures that will be taken to minimize the length of the shutdown or to negate the effect of the outage.

    (9 VAC 5-20-180 B)

19. **Notification for Facility or Control Equipment Malfunction** - The permittee shall furnish notification to the Tidewater Regional Office of malfunctions of the affected facility or related air pollution control equipment that may cause excess emissions for more than one hour, by facsimile transmission, telephone or telegraph. Such notification shall be made as soon as practicable but not later than four daytime business hours of the malfunction. The permittee shall provide a written statement giving all pertinent facts, including the estimated duration of the breakdown, within 14 days of the occurrence. When the condition causing the failure or malfunction has been corrected and the equipment is again in operation, the permittee shall notify the Tidewater Regional Office in writing.
    (9 VAC 5-20-180 C)

20. **Violation of Ambient Air Quality Standard** - The permittee shall, upon request of the DEQ, reduce the level of operation or shut down a facility, as necessary to avoid violating any primary ambient air quality standard and shall not return to normal operation until such time as the ambient air quality standard will not be violated.
    (9 VAC 5-20-180 I)

21. **Maintenance/Operating Procedures** - The permittee shall take the following measures in order to minimize the duration and frequency of excess emissions, with respect to air pollution control equipment and process equipment which affect such emissions:
    a. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance.
    b. Maintain an inventory of spare parts.
    c. Have available written operating procedures for equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum.
    d. Train operators in the proper operation of all such equipment and familiarize the operators with the written operating procedures. The permittee shall maintain records of the training provided including the names of trainees, the date of training and the nature of the training.

    Records of maintenance and training shall be maintained on site for a period of five years and shall be made available to DEQ personnel upon request.
    (9 VAC 5-50-20 E and 9 VAC 5-40-20 E)

22. **Permit Suspension/Revocation** - This permit may be suspended or revoked if the permittee:
    a. Knowingly makes material misstatements in the application for this permit or any amendments to it;
    b. Fails to comply with the terms or conditions of this permit;
    c. Fails to comply with any emission standards applicable to the equipment listed in Condition 2;
    d. Causes emissions from this facility which result in violations of, or interferes with the attainment and maintenance of, any ambient air quality standard;
    e. Fails to operate this facility in conformance with any applicable control strategy, including any emission standards or emission limitations, in the State Implementation Plan in effect on the date that the application for this permit is submitted;
    f. Fails to comply with the applicable provisions of 9 VAC 5-80-10, and Article 8 and Article 9 of 9 VAC 5 Chapter 80.

    (9 VAC 5-80-1010)

23. **Change of Ownership** - In the case of a transfer of ownership of a stationary source, the new owner shall abide by any current permit issued to the previous owner. The new owner shall notify the Tidewater Regional Office of the change of ownership within 30 days of the transfer.
    (9 VAC 5-80-940)

24. **Registration/Update** - Annual requirements to fulfill legal obligations to maintain current stationary source emissions data will necessitate a prompt response by the permittee to requests by the DEQ or the Board for information to include, as appropriate: process and production data; changes in control equipment; and operating schedules. Such requests for information from the DEQ will either be in writing or by personal contact. The availability of information submitted to the DEQ or the Board will be governed by applicable provisions of the Freedom of Information Act, §§ 2.1-340 through 2.1-348 of the Code of Virginia, § 10.1-1314 (addressing information provided to the Board) of the Code of Virginia, and 9 VAC 5-170-60 of the State Air Pollution Control Board Regulations. Information provided to federal officials is subject to appropriate federal law and regulations governing confidentiality of such information.
    (9 VAC 5-80-900)

25. **Permit Copy** - The permittee shall keep a copy of this permit on the premises of the facility to which it applies. The permit copy shall be stored on-site at Wallops Island.
    (9 VAC 5-80-860 D)